METHOD AND SYSTEM FOR MEASUREMENT OF FULL TWO DIMENSIONAL SUBMICRON SHAPES

Abstract

A method and apparatus for extracting two-dimensional image shapes from image data on a pixel array. The method comprises the steps of selecting intensity vs. pixel information in a plurality of directions in the vicinity of an edge of the image shape, and recognizing scans with sufficient contrast as containing edge information. Acceptable scans are subjected to an edge detection algorithm, the edge location is detected, and a locus of points is generated, from the detected edge values, that define the two-dimensional shape of the image. The edge detection algorithm may be a user defined edge detection algorithm that is tailored to the application. Also, in a preferred embodiment, the selecting step includes the step of selecting intensity vs. pixel information in at least four directions, and the plurality of directions are angularly spaced apart at least about 22 degrees. With one embodiment, one of these directions may be normal to an approximate edge location.